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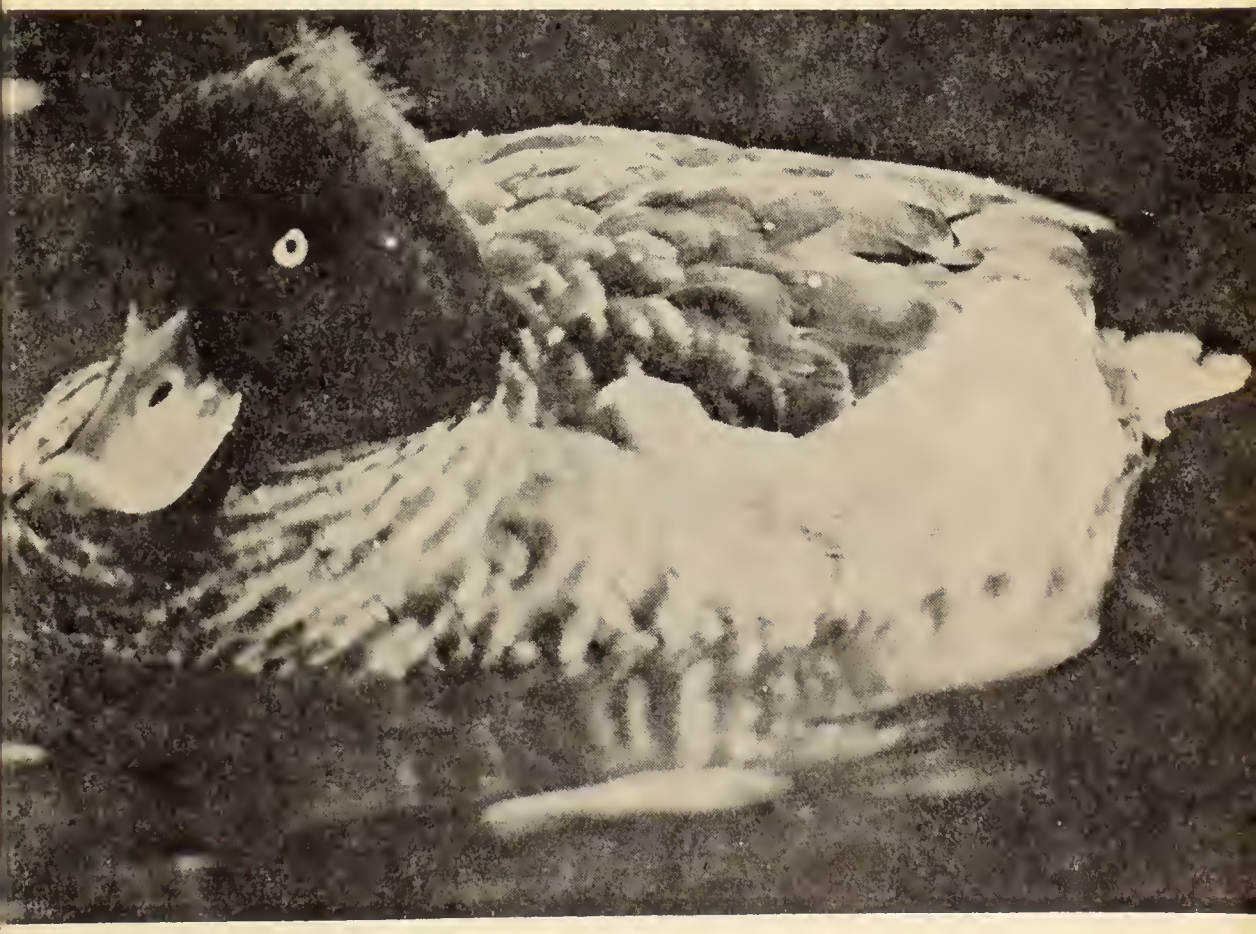
THE GULL

MONTHLY BULLETIN

Volume 54 Berkeley, California May 1972 Number 5



Female Tufted Duck, photographed at Stow Lake in San Francisco by S.S. Whitehead on February 17, 1972.

JUNE DINNER MEETING

The annual Golden Gate Audubon Dinner Meeting will be held on **Thursday, June 8,** in the Vista Room of the Lakeside Garden Center in Lakeside Park, Oakland. The featured speaker will be Bob Gill of San Jose, who will lecture and show slides on the birds of the proposed South Bay National Wildlife Refuge.

Those who plan to attend—and it is hoped many will—should try to arrive about **6:30 P.M.** A punchbowl will be set out to attract a gathering of birders and conservationists, new-comers and regulars. Dinner will begin at **7 P.M. The deadline for reservations will be Monday, June 5.** For reservations write Mrs. Ray Ericson, 222 La Salle Ave., Piedmont 94610 (832-2330). Please clip or copy the form below and send it to Mrs. Ericson with your check payable to Golden Gate Audubon Society. (Tickets will not be sent; a list of names will be at the door; your check is your receipt.)

Enclosed is my check for $..... for..... dinners at $4.25.

Name ..... Phone.....

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COVEL ON WILDFLOWERS

Oakland naturalist and GGAS Conservation Chairman Paul Covel will present a lecture and slide show on the wildflowers of the Sierra Nevada at the GGAS general meeting on **Thursday, May 11**. This program will be a good prep-course on mountain flora for those planning to attend the Yosemite field trip in June or make trips of their own to the mountains this summer. The meeting will begin at **7:30 P.M.** in the Rotary Natural Science Center in Lakeside Park, Oakland. Guests are welcome.

FIELD TRIPS FOR MAY

Friday, May 5-Sunday, May 7—a camping trip to PINNACLES NATIONAL MONUMENT. Camp 15 in the Chalone Annex group compground has been reserved for us on Friday and Saturday nights. Plenty of campsites, but parking is limited. Let's try to pool cars where possible. For those who prefer not to camp, the nearest motels are 45 miles away in Hollister—Cinderella and Ponderosa motels. There will be early morning birding each day along the dry creek bed at **6:30 A.M.**, followed by an all-day trip beginning at **8 A.M.** Bring canteens and knapsacks (and flashlights if you wish to explore the caves). Charge: $3.00 per night per vehicle. Take U.S. 101 south past Gilroy; turn left on highway 25, continue south through Hollister; turn right on road leading to the park about 45 miles south of Hollister (Driving time: about 3 hours). Leader: Warren Larsen (525-9149).

Saturday, May 13—JACK LONDON RANCH. A beautiful historic ranch situated among the rolling hills of the Valley of the Moon in Sonoma County. We should see Red-shouldered Hawks, Lazuli Buntings, and perhaps a Pileated Woodpecker. Meet at **8 A.M.** in the town of Glen Ellen on highway 12 at the Jack London Lodge. Look for Yellow-breasted Chats

along the stream behind the lodge. Bring lunch. Leader: Valeria DaCosta (931-5257).

Wednesday, May 17—MT. DIABLO. Meet at the South Gate Ranger Station at **8:30 A.M.** Approach by way of Mt. Diablo Road out of Danville. We should see Black-chinned, Sage, and Rufous-crowned Sparrows. Leader: Larry Curl (939-5841).

Sunday, May 21—Same trip as above. Leader: Ray Higgs (355-6264).

Saturday, May 27—a fast-moving, 5-7 mile hike on MT. TAMALPAIS for energetic birders. Meet at the big parking lot in the center of the town of Fairfax, Marin County. Caravan to the starting point will begin promptly at **8:30 A.M.** Bring lunch in a knapsack. Leader: Pat Triggs (664-8502).

Saturday, Sunday, June 3 & 4—YOSEMITE NATIONAL PARK. Meet at **9 A.M.** each day in front of the Visitor Center in Yosemite Village. See February *Gull* for information on accommodations. Leader, George Peyton.

NOTE: From now on, there will be a field trip in Golden Gate Park the last Wednesday of every month. Meet at **9 A.M.** in front of the Academy of Sciences. You may take the #10 bus line. Lunch optional. Choose your own leader.

—PATRICIA TRIGGS, *Field Trips Chairman.*

ASILOMAR BOAT TRIP

Participants at the recent Western Regional Conference in Asilomar took enough time off to board five boats out of Monterey for a day of pelagic birding. Highlights of the trip included as many as five Black-footed Albatross, Cassin's Aukelets, Rhinoceros Aukelets in breeding plumage, Sooty Shearwaters, a few Pink-footed Shearwaters, and a few late Fulmars. Observers also saw a number of gray whales and sea otters, but did not see any porpoise during the trip. The absence of these fine animals caused some concern about their present status.—VALERIA DACOSTA.

FIELD TRIP REPORTS

Some 35 people enjoyed clear weather in the San Joaquin Valley on January 29 and 30. Highlights at the Los Banos State refuge were close views and sounds of many White-faced Ibis and Long-billed Curlews. At the federal refuges, San Luis and Merced, we saw Sandhill Cranes, thousands of Snow and Canada (Cackling) Geese, many Shovelers and Cinnamon Teal. We also saw Burrowing Owls and two Rough-legged Hawks. Leader, Marie Mans.

On March 5, 63 people enjoyed a fine day of birding along the Drake's Estero Trail, where there is a considerable variety of habitat—lagoons, lakes, mudflats, green hillsides and the estero itself. Thirty-five species were seen, including an Osprey, several hundred Black Brant, Say's Phoebe, Green-winged Teal, and the Harris' Sparrow that has been seen by many observers this winter. Leader, Ailcen Pierson.

Despite an overcast morning, about fifty people turned out for a walk around Tubbs Island on March 12. Along the road leading to the island,

Ring-necked Pheasants were abundant, and many people enjoyed their best looks at these colorful introduced game birds. About 40 species were seen, including White-tailed Kites, a Golden Eagle, a huge flock of Long-billed Curlews, and a Burrowing Owl. Leader: S.S. Whitehead.

On March 28, about 25 birders met at Doran Park for a trip around Bodega Bay and to Bodega Head. The weather was clear, but very windy. About 60 species were sighted, including all three Loons, Pelagic Cormorants in breeding plumage, Black Brant, Osprey, and many other shore and water birds. Leader: Jim Clayton.

COVEL'S CONSERVATION CORNER

We returned from the Western Regional Conference in Asilomar brimming with a heady mixture of inspirational themes, reports of significant progress here and there in conservation, and traumatic accounts of devastating assaults on our environment and wildlife.

Introduction of bighorn sheep to the Lava Beds National Monument—part of their ancestral range—was announced as a joint venture of the California Department of Fish and Game and the U.S. Bureau of Sport Fisheries and Wildlife. When we asked regional Bureau chief John Findlay about the timetable for introducing tule elk to the San Luis Refuge in the San Joaquin Valley, however, we learned that this possibility is "still under study." Other potential elk habitats in California are also being surveyed.

We heard with horror and dismay of the 4,000 lethal oil sumps that remain in the San Joaquin Valley. Phil Schaeffer, interne-aide to Paul Howard in the Sacramento office of the National Audubon Society, has investigated and photographed these sumps and estimates that 35,000 game birds annually meet their doom in them. He said that perhaps twice that number of non-game birds and small animals die as a result of these sumps. The oil industry now is phasing them out, and Assembly Bill 1561 would outlaw them permanently.

We learned of the rapid destruction of the California desert by off-road vehicles from slides taken by the Bureau of Land Management and from a dramatic film.

The Wyoming eagle-kill scandal was touched off by curious high school boys who reported carcasses to the Murie Audubon Society. The all-out search, detective work, and alerting of government agencies that followed would make a best-seller. These discoveries probably led to the President's recent ban on using poisons for predator control on public lands. lands.

Do we need a Southern Crossing? Can the environment withstand a Southern Crossing? Voters in six Bay Area counties will give their answer to such questions on June 6th when they vote on Proposition A, which reads: "Shall the California Toll Bridge Authority be premitted to construct the Southern Crossing Bridge? Yes..... No....." Most local governments and legislators, virtually all local environmental organizations, and the National Audubon Society have taken positions against the measure.

The Southern Crossing Bridge gradually might be accepted on our horizon were it not for the serious threats it would present to the environment. What of the emissions an estimated 61,000 vehicles daily by 1980 would release into the atmosphere? What about the miles of new freeways the traffic from this eight-lane crossing would require to be built on bay shore fill? What about the economic effect of the bridge on B.A.R.T.? Many people believe B.A.R.T. should be extended, yet if the tolls on existing bridges must be raised for twenty-five years to pay for the Southern Crossing where will the money be found to extend B.A.R.T.'s services? The new Metropolitan Transportation Commission is trying to develop a modern, regional transportation system that might offer saner and safer alternatives to more bridges and freeways. Let's give them a chance.

—PAUL COVEL, *Conservation Chairman.*

DOCENTS NEEDED AT OAKLAND MUSEUM

Additional docents are needed to serve as volunteer interpretive guides in the Natural Sciences Gallery at The Oakland Museum. The next training program to prepare volunteers to serve as docents will begin in September, 1972.

Prospective docents are required to take a two-semester course on general and California ecology and complete one semester of in-gallery training within the Museum, which includes familiarization with the natural science exhibits and training in public speaking and communication. A fee of $45 is charged for the third semester. A limited number of scholarships are available for anyone who might not be able to complete the third semester because of the charge.

After completion of the three-semester training program, docents are required to serve as interpretive guides approximately two half-days a month. Active docents are eligible to participate in a continuing education program consisting of lectures, discussions and field trips that continue to expand the docents' knowledge of California ecology.

Persons interested in participating in the docent program or receiving additional information should call the Docent Coordinator at The Oakland Museum at 893-0340 or 273-3515.

NEW BILL PROCEDURE

To expedite the payment of chapter bills, we are asking that they be submitted to the office manager, Chris Carroll, at the GGAS Center (1749 Grove St., Berkeley, Calif.) by the 20th of each month. He will then process and forward all bills to the treasurer for payment by the first of each month. We hope this new system will be a more practical way of reimbursement and urge that bills be submitted by the 20th of the month so that payment can be made promptly.

CAMPAIGN TO SAVE SONOMA COAST

The Sonoma Coast State Park Committee is appealing to all nature lovers and conservationists to help it save important tracts of land along California's beautiful Sonoma coastline. Of prime importance are North

Jenner Beach at the mouth of the Russian River and Penny Island, a 29-acre island in the estuary of the Russian River that is a sanctuary for sea and shore birds. These lands are imminently threatened by development and must be saved now if they are to be saved at all. If you would like to make a contribution to this project or if you desire further information, write to the Sonoma Coast State Park Committee, P.O. Box 21, Jenner, California 95450. The committee is a volunteer group organized within the California State Parks Foundation. All contributions are tax deductible.

FIELD OBSERVATIONS

Red-necked Grebe, March 11, two near Limantour Estero—JR, VR,

White-faced Ibis, March 12, 20 at Los Banos—JR,VR.

Ross' Goose, March 12, 10 north of Los Banos—JR, VR.

Blue-winged Teal, March 6, Palo Alto salt marsh—BF; March 11, Olema marsh and Limantour Estero—JR, VR; March 18, Walker Creek near Tomales Bay—JC; March 27, Limantour Estero—DW, SW; April 4, Tubbs Island, a pair on one of the ponds—DW, SW.

Harlan's Hawk, dark phase, March 10, near Susanville—BP, SSW, AM.

Swainson's Hawk, a pair in flight, dark phase, March 12, San Luis Refuge—JR, VR.

Rough-legged Hawk, March 7, Pescadero—AM, BP *et. al.*

Ferruginous Hawk, Feb. 22, Gray Lodge Refuge—RD, TD.

Golden Eagle, March 12, Tubbs Island—LC; immature, March 21, Grizzly Island—MZ *et. al.*

Osprey, March 14, Bolinas Lagoon—JRi; March 30, Bolinas Lagoon—SW.

Pigeon Hawk, female, March 5 & 14, Bolinas Lagoon—MLR, JRi, RD *et. al.;* March 12, Los Banos Refuge—JR, VR.

Piping Plover, still near Goleta Point, Santa Barbara County, according to the March issue of "El Tecolote," the bulletin of the Santa Barbara Audubon Society.

Surfbird, March 12, four near the Bay Bridge Toll Plaza—PW, CS; nine in breeding plumage, March 15—VS, VH; on Dec. 21, JM observed them in the same location in winter plumage.

Wandering Tattler, Feb. 24, Pescadero—BP *et. al.*

Knot, March 17, 57 at Alameda South Shore—JM, ER; April 8, four in breeding plumage at same location—DW, SW.

Pygmy Owl, at least four heard calling at separate places along Arroyo Mocho on March 12—JR, VR.

Saw-whet Owl, March 19, observed with flashlights in Redwood Regional Park, Oakland—GA, JM.

Slate-colored Junco, March 12, University Village, Albany—JM, CP, MP; December 18-March 19, Oakland feeder—VH.

Harris' Sparrow, March 11-19, Mill Valley feeder—VL, WL; one still at Point Reyes ranch on March 5.

White-throated Sparrow, Feb. 27, San Rafael feeder—BD, ID, WD; March 2, Golden Gate Park Arboretum—BP; December 7-March 22, Oakland feeder—VH; March 22, still at San Francisco feeder—AF.

Behavior observation: for the third consecutive winter, a female Varied Thrush was observed eating bird seed at a San Rafael feeder—BP.

Observers: Garth Alton, Jim Clayton, Larry Curl, Byron Davies, Ivor and Winifred Davies, Ruth and Ted Dement, Ann Follis, Bud Fry, John Hollis, William and Volna Losh, Alice Mericourt, Joe Morlan, Chuck and Meg Payne, Bill Pursell, Jack Reddall, Van Remsen, Jean Richmond, Elsie Roemer, Mary Louise Rosegay, Virginia Sherwood, Clarence Smith, Peter Ward, S.S. Whitehead, Donna and Steve Whitney, Margaret Zeff.
—VI HOMEM, *Observations Chairman*, 339-1886.

NEW SERVICE FOR BIRDERS

The Golden Gate Audubon Society has recently instituted a Field Observations Bulletin Board at the Audubon Center, 1749 Grove St., Berkeley, California. Established and maintained by Vi Homem and Pete Rosemarin, this board will provide up-to-date information (revised weekly) on the rare and uncommon avian visitors that turn up in the Bay Area. This service will allow an increased number of birders to learn about interesting birds in the region while such birds are still here. It will also help people plan their local birding expeditions. All unusual observations will be posted **except** nesting sites and those made on private property.

BIRDING CALENDAR

May is perhaps the best month for finding land birds in the Bay Area. Most of the species that nest here have arrived; many migrants bound for other regions may still be seen. For places to go, consult last month's *Gull*.

A couple of additional suggestions: Pinnacles National Monument (see Field Trips for May) is alive with birds in May, including a few species that are rather uncommon in the Bay Area proper, such as Roadrunner, Black-chinned Hummingbird, Lewis' Woodpecker, House Wren, Canyon Wren, Rock Wren, Blue-gray Gnatcatcher, Phainopepla, and Lawrence's Goldfinch. A trip to various parks, rivers, and refuges in the Sacramento and San Joaquin Valleys might turn up many of the above species, as well as others such as the Blue Grosbeak and Yellow-billed Cuckoo (very rare).

Finally, don't ignore the shorelines and coastal habitats in the Bay Area this month. You may still see some interesting migrating shorebirds, many of which will be decked out in bright nuptial plumage.

CORRECTION: In last month's "Birding Calendar," I incorrectly stated that one could see "Indigo Buntings" in Laurel Canyon in Tilden Park. I meant to say "Lazuli Butings." The Indigo Bunting, of course, is an eastern species, which I have not seen in Laurel Canyon, or anywhere else for that matter.—STEVE WHITNEY, *Editor*.

A GULL SPECIAL REPORT—DUCK BOTULISM

Last August, Western Duck Sickness killed 400 Mallards at the Lake Merritt Waterfowl Refuge in Oakland, California. At the same time, 5000 birds died from the same disease at the Bear River Migratory Bird Refuge on the north shore of the Great Salt Lake. Western Duck Sickness is a form of botulism, the bacterial food poisoning that is also fatal to humans.

Botulism results from ingesting a powerful nerve toxin produced by the bacillus, *Clostridium botulinum,* which exists in both soil and water. Its spores are extremely resistant to phyical changes, but require special conditions for germination.

When the spores do begin to multiply, they produce botulism toxin in the process. If ingested by a bird or animal, the toxin enters the bloodstream through the digestive tract and quickly begins to inhibit the nerve action that controls breathing and the movement of legs, arms or wings. Death results from the paralysis of the respiratory muscles.

Scientists have identified six types of *Clostridium botulinum,* all of which are common in the United States. Types A, B, E and F cause botulism in humans. Type D is responsible for the disease in other mammals. Type C is the source of Western Duck Sickness.

Duck botulism commonly occurs in the brackish lakes and marshes of the Western United States, but outbreaks have also occured in other regions of the country. Alkaline conditions seem necessary for the production of type C toxin, but only a slight degree of alkalinity may be enough.

Type C spores lie dormant in the muddy bottoms of lakes for most of the year. During this period, they can be eaten without ill effects. In late summer, however, when water levels drop and this mud is either exposed entirely or covered by shallow water, the spores may begin to multiply and produce their toxin.

Apparently the mud must be fairly warm for this process to occur, for it rarely happens in cool weather or when the mud is covered by deep water.

Yet even when conditions seem perfect, outbreaks of duck botulism may be small or non-existent. So far, pathologists studying the disease are unable to explain this irregularity except to say that other, still unknown factors are involved.

Surface-feeding ducks like Mallards, Pintails and Shovelers are most likely to ingest the botulinus toxin because they dabble in the mud for their food. Other birds are also susceptible to the poisoning, but are saved by different feeding habits.

In late summer, huge flocks of ducks begin to fly south from their breeding grounds. On their way, they stop to feed at various ponds and marshes. Especially large concentrations of waterfowl may visit wetlands in the Great Basin region, where water is scarce. Their arrival often coincides with the germaination of botulinum spores.

Within 24 hours, most of a once healthy flock may be near death, with thousands of birds lying on the mudflats or floating helplessly in shallow ponds. Those not already dead are limp. Their breathing is labored. Their eyes may be clouded and they may show signs of diarrhea.

If horse serum anti-toxin is available, most of the treated birds will survive. Yet many will die before they can be picked up. If the outbreak is large, effective treatment will be impossible, for neither sufficient amounts of anti-toxin nor numbers of men are available for the job. All that remains in such cases is to pick up the dead birds as rapidly as possible.

According to Paul Covel, the Chief Naturalist at Lake Merritt, anti-toxin is now unavailable because no pharmaceutical firm is willing to bear the cost of its production. The market for the anti-toxin is too small and irregular to be profitable. The U.S. Fish and Wildlife Service still has ten liters of anti-toxin, but this supply is reserved for research and for an outbreak that might endanger a rare species.

In humans, the use of horse serum anti-toxin is risky because of possible serum infection. Nor does it always work in serious cases. Ducks respond better to anti-toxin, but there is disagreement as to how much better.

Covel said that the anti-toxin was very effective. He cited a 1959 study for the National Audubon Society that claimed the anti-toxin to be 92% effective in moderate cases of botulism and 65% in severe cases. The study said that only one-third of the afflicted birds could be expected to survive as the result of alternative methods of treatment. This estimate agrees with the recent experience at Lake Merritt, where, without the toxin, only 200 out of 600 ducks were saved.

The U.S. Fish and Wildlife Service, however, claims that research at the Bear River Refuge indicates that 70% of the affected ducks will survive without any treatment at all, and that the use of anti-toxin only increases this figure by 15%.

Covel, who was at Bear River during the recent outbreak, doubts this statement. He said that no attempt was made to treat the sick birds and that so far as he knew, most of them died.

At the same time, naturalists and volunteers at Lake Merritt saved 200 ducks by forcing an epsom salts solution down their gullets. The solution act as an emetic, flushing most of the poison from the birds' systems. Humans stricken with botulism usually receive similar treatment.

The recent epidemic at Lake Merritt was finally halted, however, only after the locks connecting the lake to San Francisco Bay were opened to permit the influx of additional water. According to Lionel Kett, the assistant naturalist at the lake, the number of dead birds picked up each day thereafter dropped off rapidly. Within a week the outbreak was over.

Kett attributes this success to the cooling action of the additional water, which covered exposed mud and generally lowered the water

temperature of the shallow lake. This process has been used successfully before and remains one of the most effective methods of controlling duck botulism. Some authorities believe that such flooding also may dilute the botulinum toxin to a point where it is no longer dangerous.

Not the least important effect of raising the water level is that surface-feeding ducks no longer have access to the toxin-bearing muds. This forces them to seek other food sources. The same result can also be achieved by completely draining a pond so that it is no longer attractive to waterfowl. Both methods have been used at Bear River as preventive measures.

Duck botulism remains a serious threat to waterfowl populations using the western flyways. It will not easily be controlled except by keeping water levels high in western lakes and marshes. If the experience of wildlife managers at Bear River is significant, however, this condition is not likely to occur so long as farmers require water for irrigation purposes.—SW.

CANYON RANCH NEWS

Audubon Canyon Ranch has announced that the drive to match two-to-one the $35,000 grant by the Charles E. Merrill Trust has gone over the top. The money raised will be spent for the acquisition of "significant, undeveloped wild lands," including additional purchases along the east shore of Tomales Bay.

Two recent acquisitions in this area are the entire 120-acre delta of Walker Creek, the largest stream in Marin County, and a strip of land over one mile long between Walker Creek and Highway One just inland from the delta. Together, these acquisitions will preserve as open space the richest and most important area of Tomales Bay from an ecological standpoint. The area will be posted as a wildlife sanctuary.

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Helen Pratt is starting the sixth year of her study of the nesting cycle of the herons and egrets in the rookery at Audubon Canyon Ranch. This valuable work grows more significant each year. Since it is impossible, however, for one person to check closely all the visible nests every day from the time the eggs are laid until the day the chicks are fledged, Mrs. Pratt is asking Audubon members to help her keep track of the nests during May. Volunteers please call Helen Pratt at 388-1966.

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Autographed first editions of *The Leaf Book, A Field Guide of Plants* of Northern California, $4.75, by Ida Geary, author of *Marin Trails,* are being sold for the benefit of Audubon Canyon Ranch. *The Leaf Book* is illustrated with 360 plant prints, many of which have appeared in *Audubon* and *Pacific Discovery.* Like the book itself, the prints combine scientific accuracy and artisitc beauty. The book covers marine algae, fungi, lichens, mosses, ferns and fern allies, grasses, sedges and rushes, wildflowers, shrubs and trees. Signed copies will be sent post-free to our mem-

bers or as gifts to their friends by Audubon Canyon Ranch. Send orders to the ranch, Coast Highway 1, Stinson Beach 94970. Only orders accompanied by a full payment at the rate of $4.75 plus 24¢ tax ($4.99) per copy will be accepted.

DO YOU WANT TO VISIT BAJA?

H. & M. Landings of San Diego, California, has organized a series of six and ten-day boat trips to Baja California. Six-day trips include stops at such islands and lagoons as Guadalupe Island, San Benitos Isles, Scammons Lagoon, and San Martin Isle. Ten-day trips include a visit to the great sea bird nesting grounds at Magdalena Bay. These trips are led by competent biologists and come highly recommended by many qualified professional and amateur naturalists. If you are interested in obtaining further information, write H. & M. Landings, Emerson and Scott Streets, San Diego, California 92106.

MEMORIAL GIFTS

Gifts of remembrance were made to *Audubon Canyon Ranch*:

In Memory of:	*Gift of*:
Myra Browne	Norma L. Britton
	Mrs. Helen Dickie, Erline Hevel, Claire M. Johnston, Ida E. Logan, Roberta Long, Edith Magnuson, Natalie Mestechin, Tom & Agnes Oczkewecz, Bonnie Smith.
Georgia Gilcrest	Mrs. Helen Roller
Mary Gosling	Mrs. Helen Roller
Helen Winn Hunter	Mr. & Mrs. William Wright
Edwin Jones	Mrs. Helen Roller
Louise Morris	Mrs. Helen Roller
Dr. Mary Rauch	Mr. & Mrs. John Saulsberry

In Honor of:	*Gift of*:
Dr. Albert Boles	Boy Scout Troop 254

NOTE: The GGAS Board of Directors has voted to purchase an acre at Audubon Canyon Ranch in memory of Myra Browne. If you would like to contribute to the Myra Jones Browne Memorial Acre, send your donation to Dr. Albert Boles at the address listed below. We regret that this information was not included in the April *Gull* along with the tribute to Myra Browne.

—DR. ALBERT BOLES, *Sanctuary and Memorial Fund Chairman*, 854 Longridge Road, Oakland 94610 (451-6267).

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Established January 25, 1917 A Branch of the National Audubon Society since 1948

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Office Manager	Chris Carroll	2629 Piedmont, D, Berkeley 94704	843-2931

Send address changes to Membership Secretary promptly; Post Office does not forward *THE GULL* Monthly meetings second Thursday 7:30 p.m. Joint membership,—Local & National $12 per year, (individual); $15 (family); includes *AUDUBON MAGAZINE* and *THE GULL*. Subscriptions to *THE GULL* separately $2 per year.

High school & college student membership $6 per year.

The *Gull* deadline is the first of the month for the following month.